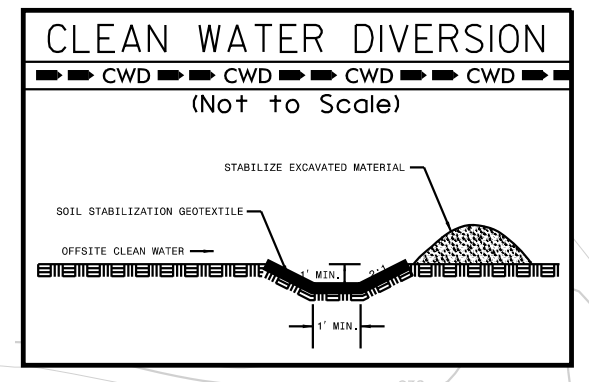


5/14/2019  
MATCHLINE -Y- STA. 106 + 00.00 SEE SHT. 12



RALEIGH-DURHAM AIRPORT AUTHORITY  
DB 3565 - PG 231  
BM 1999 - PG 392

CLEARING AND GRUBBING  
EROSION CONTROL FOR  
CONSTRUCTION SHEET 13

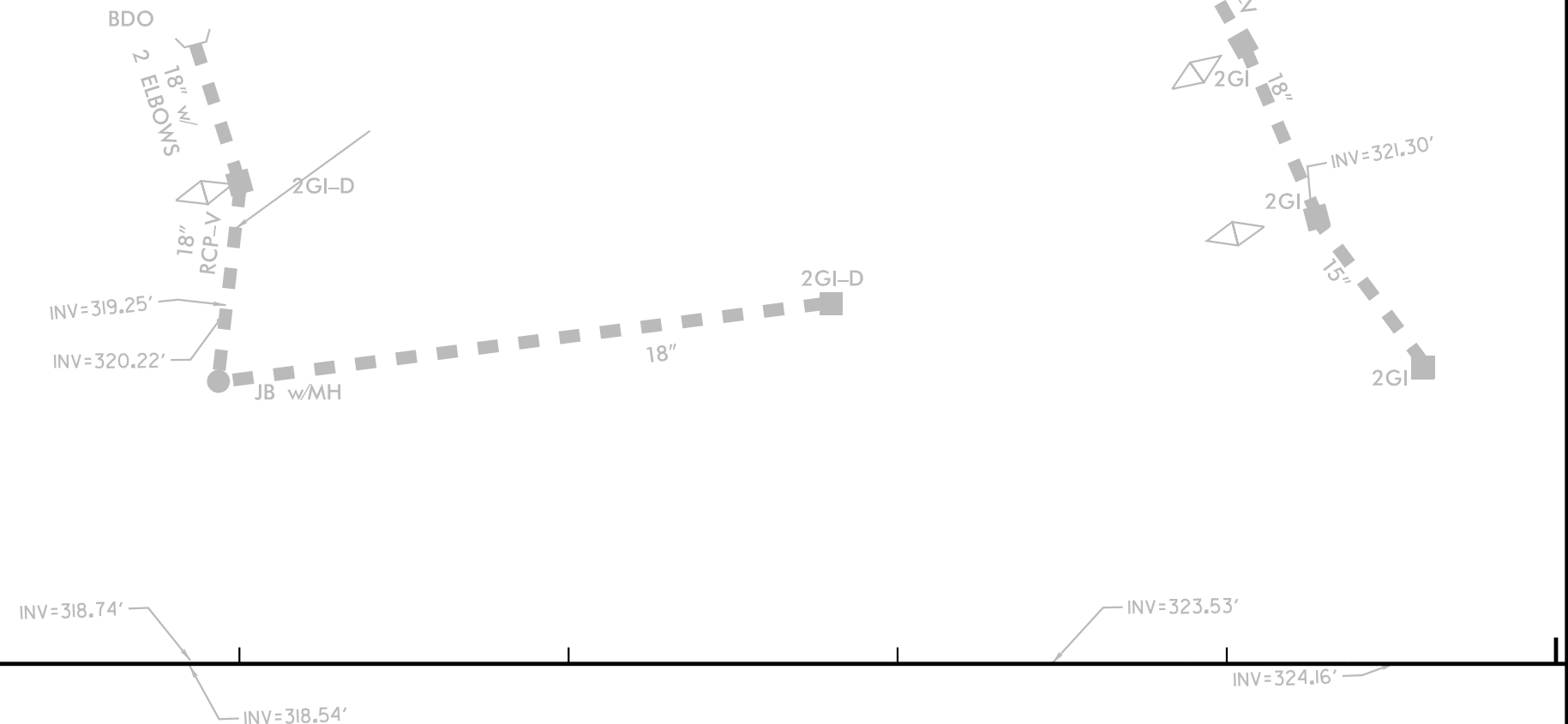
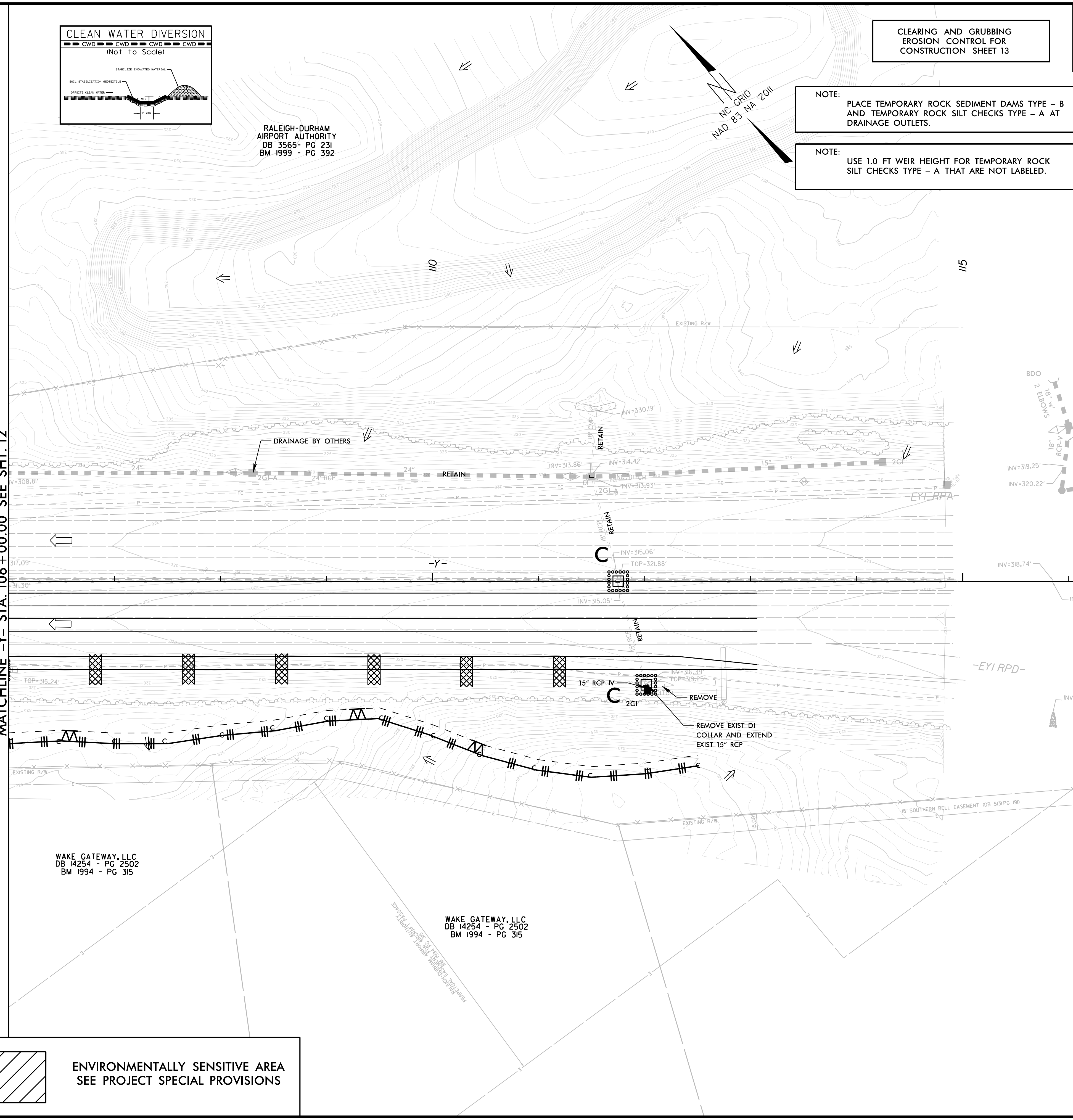
ETHERILL ENGINEERING  
1223 Jones Franklin Rd.  
Raleigh, N.C. 27606  
License No. F-0377  
Bus: 919 851 8077  
Fax: 919 851 8107

PROJECT REFERENCE NO. 1-5700	SHEET NO. EC-13/CONST.13
RW SHEET NO.	
ROADWAY DESIGN ENGINEER	HYDRAULICS ENGINEER

**Kimley Horn**  
©2019  
P.O. BOX 33068 RALEIGH, N.C. 27636-3068

NOTE:  
PLACE TEMPORARY ROCK SEDIMENT DAMS TYPE - B AND TEMPORARY ROCK SILT CHECKS TYPE - A AT DRAINAGE OUTLETS.

NOTE:  
USE 1.0 FT WEIR HEIGHT FOR TEMPORARY ROCK SILT CHECKS TYPE - A THAT ARE NOT LABELED.



WAKE GATEWAY, LLC  
DB 14254 - PG 2502  
BM 1994 - PG 315

WAKE GATEWAY, LLC  
DB 14254 - PG 2502  
BM 1994 - PG 315

 ENVIRONMENTALLY SENSITIVE AREA  
SEE PROJECT SPECIAL PROVISIONS

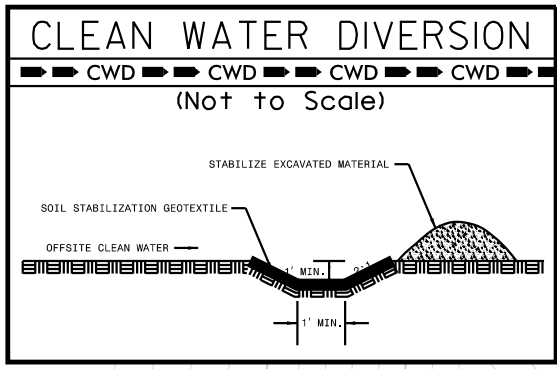
NOTE:  
UTILIZE TEMPORARY SEDIMENT BASIN OR SPECIAL STILLING BASIN(S) AS STILLING BASIN WHERE APPLICABLE.

NOTES:  
ANY DEVIATION FROM OPTIONS GIVEN WILL REQUIRE PRIOR APPROVAL BY ENGINEER.  
  
ADDITIONAL EROSION CONTROL DEVICES MAY NEED TO BE INSTALLED AS DIRECTED BY THE ENGINEER.

SEE SHTS. 20 THRU 23 FOR -Y- PROFILE



5/14/2019



NOTE: PLACE TEMPORARY ROCK SEDIMENT DAMS TYPE - B AND TEMPORARY ROCK SILT CHECKS TYPE - A AT DRAINAGE OUTLETS.

NOTE: USE 1.0 FT WEIR HEIGHT FOR TEMPORARY ROCK SILT CHECKS TYPE - A THAT ARE NOT LABELED.

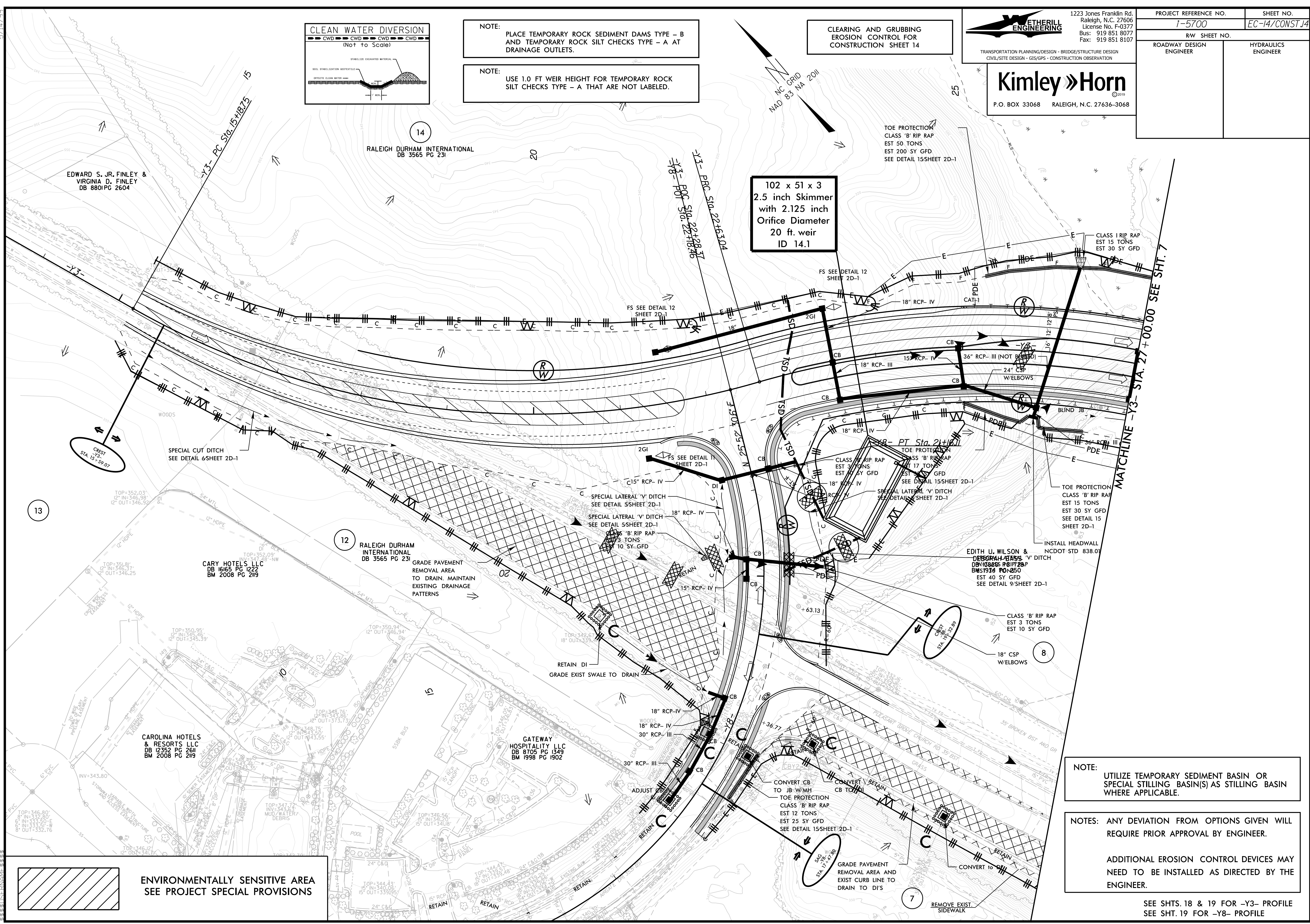
CLEARING AND GRUBBING  
 EROSION CONTROL FOR  
 CONSTRUCTION SHEET 14

**ETHERILL ENGINEERING**  
 1223 Jones Franklin Rd.  
 Raleigh, N.C. 27606  
 License No. F-0377  
 Bus: 919 851 8077  
 Fax: 919 851 8107

TRANSPORTATION PLANNING/DESIGN - BRIDGE/STRUCTURE DESIGN  
 CIVIL/SITE DESIGN - GIS/GPS - CONSTRUCTION OBSERVATION

**Kimley Horn**  
 ©2019  
 P.O. BOX 33068 RALEIGH, N.C. 27636-3068

PROJECT REFERENCE NO. 1-5700	SHEET NO. EC-14/CONST.14
RW SHEET NO.	HYDRAULICS ENGINEER
ROADWAY DESIGN ENGINEER	



102 x 51 x 3  
 2.5 inch Skimmer  
 with 2.125 inch  
 Orifice Diameter  
 20 ft. weir  
 ID 14.1

ENVIRONMENTALLY SENSITIVE AREA  
 SEE PROJECT SPECIAL PROVISIONS

NOTE: UTILIZE TEMPORARY SEDIMENT BASIN OR SPECIAL STILLING BASIN(S) AS STILLING BASIN WHERE APPLICABLE.

NOTES: ANY DEVIATION FROM OPTIONS GIVEN WILL REQUIRE PRIOR APPROVAL BY ENGINEER.

ADDITIONAL EROSION CONTROL DEVICES MAY NEED TO BE INSTALLED AS DIRECTED BY THE ENGINEER.

SEE SHTS. 18 & 19 FOR -Y3- PROFILE  
 SEE SHT. 19 FOR -Y8- PROFILE



ETHERILL ENGINEERING  
 1223 Jones Franklin Rd.  
 Raleigh, N.C. 27606  
 License No. F-0377  
 Bus: 919 851 8077  
 Fax: 919 851 8107

TRANSPORTATION PLANNING/DESIGN - BRIDGE/STRUCTURE DESIGN  
 CIVIL/SITE DESIGN - GIS/GPS - CONSTRUCTION OBSERVATION

**Kimley Horn**  
 P.O. BOX 33068 • RALEIGH, N.C. 27636-3068

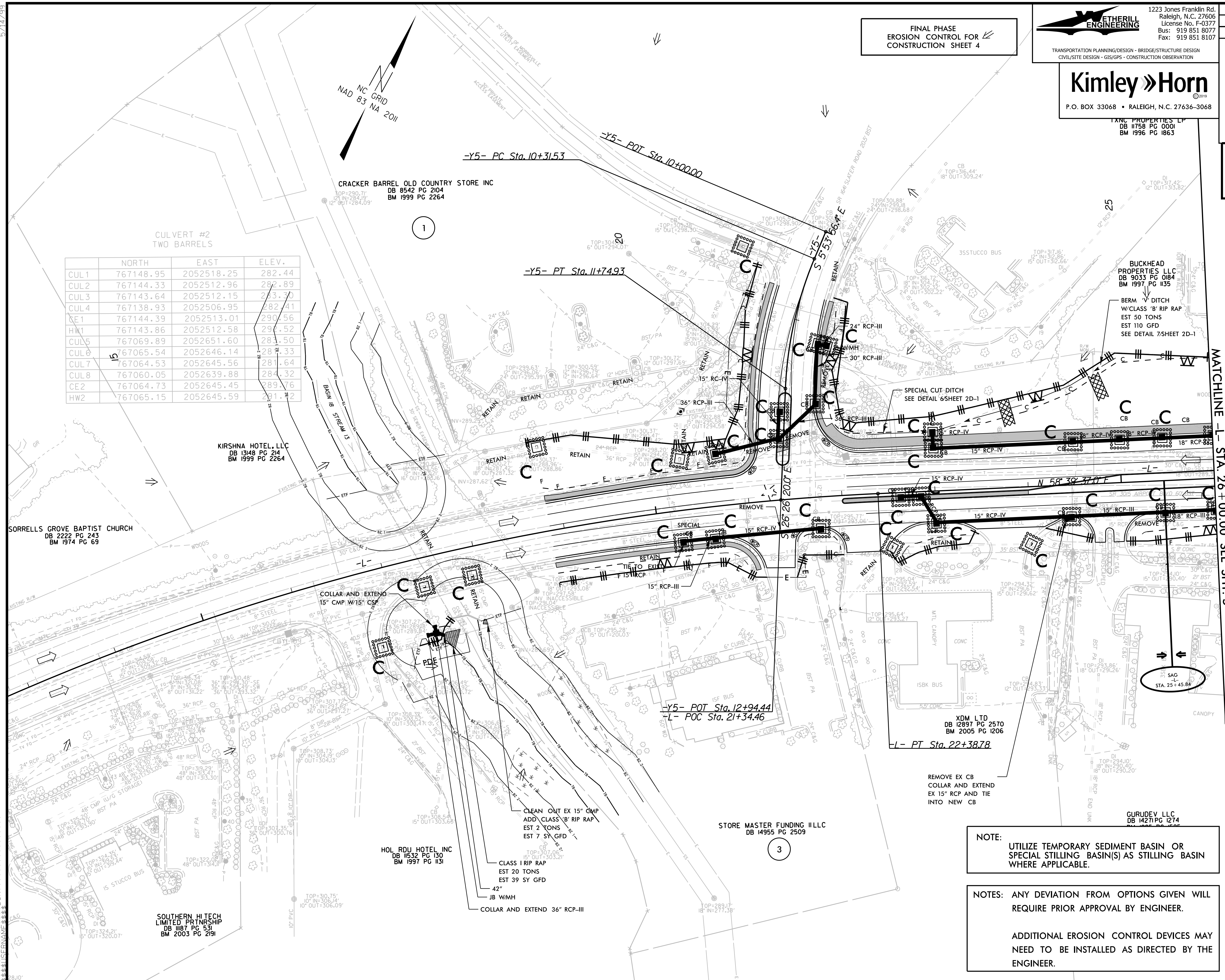
PROJECT REFERENCE NO.	SHEET NO.
1-5700	EC-15/CONST.4
R/W SHEET NO.	
ROADWAY DESIGN ENGINEER	HYDRAULICS ENGINEER

FINAL PHASE  
 EROSION CONTROL FOR  
 CONSTRUCTION SHEET 4

Place Matting for Erosion Control  
 on Slope as Work Allows.  
 See Sheets EC-3 thru EC-3A  
 for Station Ranges

CULVERT #2  
TWO BARRELS

	NORTH	EAST	ELEV.
CUL1	767148.95	2052518.25	282.44
CUL2	767144.33	2052512.96	282.89
CUL3	767143.64	2052512.15	283.30
CUL4	767138.93	2052506.95	282.41
CE1	767144.39	2052513.01	290.56
HW1	767143.86	2052512.58	290.52
CUL5	767069.89	2052651.60	281.50
CUL6	767065.54	2052646.14	281.33
CUL7	767064.53	2052645.56	281.64
CUL8	767060.05	2052639.88	281.32
CE2	767064.73	2052645.45	289.16
HW2	767065.15	2052645.59	291.22



NOTE:  
 UTILIZE TEMPORARY SEDIMENT BASIN OR  
 SPECIAL STILLING BASIN(S) AS STILLING BASIN  
 WHERE APPLICABLE.

NOTES: ANY DEVIATION FROM OPTIONS GIVEN WILL  
 REQUIRE PRIOR APPROVAL BY ENGINEER.

ADDITIONAL EROSION CONTROL DEVICES MAY  
 NEED TO BE INSTALLED AS DIRECTED BY THE  
 ENGINEER.

★ PROPOSED TRAFFIC SIGNAL

SEE SHTS. 15 & 16 FOR -L- PROFILE  
 SEE SHT. 19 FOR -Y5- PROFILE



5/14/1999

	NORTH	EAST	ELEV.
CUL1	767996.90	2053907.59	282.71
CUL2	767992.17	2053899.10	280.98
CUL3	767991.64	2053898.27	280.99
CUL4	767986.83	2053889.93	280.97
CUL5	767986.36	2053888.99	280.42
CUL6	767981.56	2053880.63	281.31
CE1	767989.21	2053894.00	281.02
CUL7	767989.54	2053894.66	280.34
CUL8	767861.79	2053971.20	280.84
CUL9	767861.44	2053970.00	280.97
CUL10	767856.49	2053962.85	281.07
CUL11	767855.96	2053961.51	281.22
CUL12	767851.50	2053953.39	280.91
CE2	767859.70	2053966.50	281.53
HW2	767859.89	2053966.50	292.18

1223 Jones Franklin Rd.  
Raleigh, N.C. 27606  
License No. F-0377  
Bus: 919 851 8077  
Fax: 919 851 8107

**ETHERILL ENGINEERING**

TRANSPORTATION PLANNING/DESIGN - BRIDGE/STRUCTURE DESIGN  
CIVIL/SITE DESIGN - GIS/GPS - CONSTRUCTION OBSERVATION

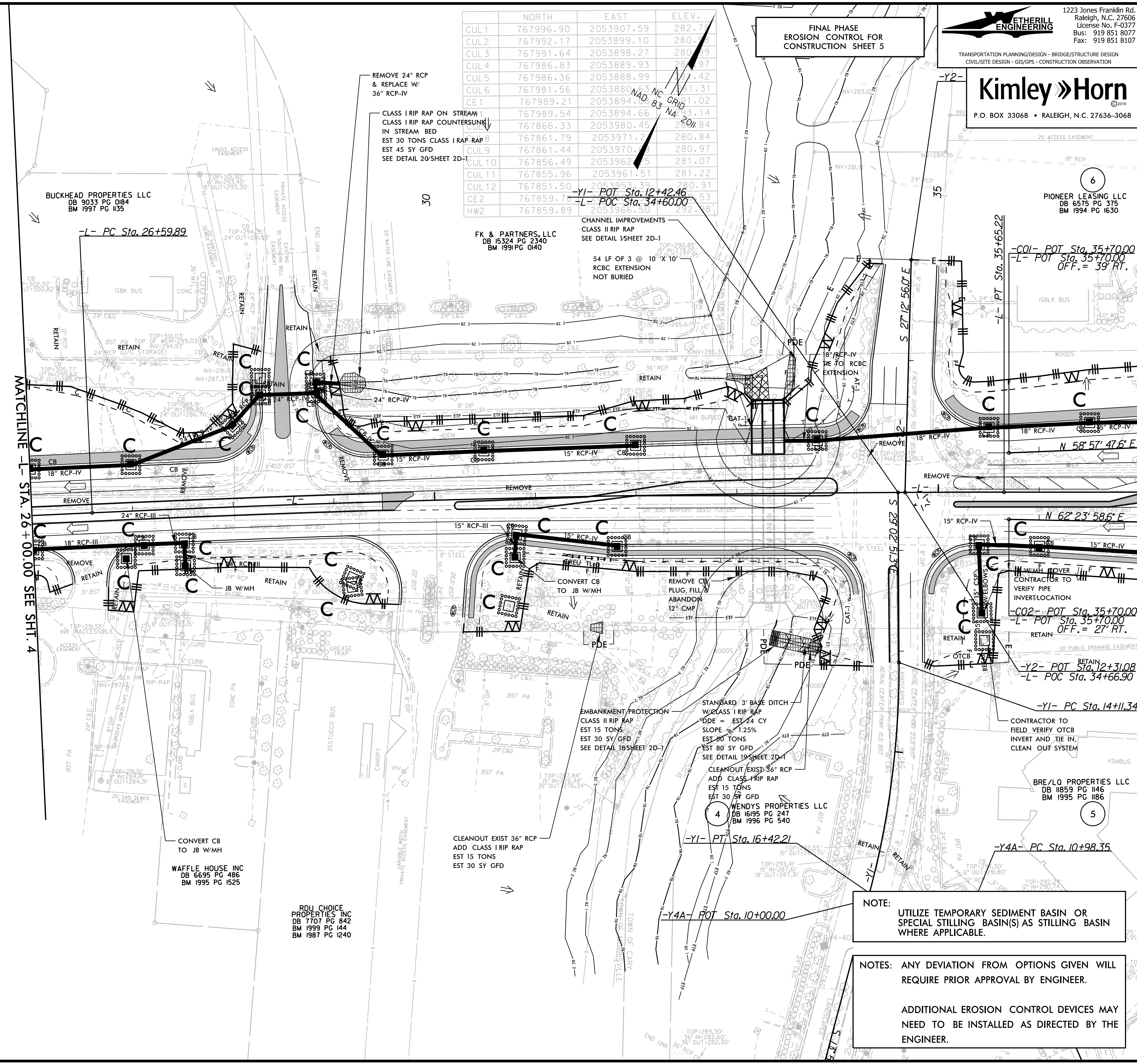
**Kimley Horn**

P.O. BOX 33068 • RALEIGH, N.C. 27636-3068

PROJECT REFERENCE NO. <b>1-5700</b>	SHEET NO. <b>EC-16/CONST.5</b>
R/W SHEET NO.	HYDRAULICS ENGINEER
ROADWAY DESIGN ENGINEER	

Place Matting for Erosion Control on Slope as Work Allows. See Sheets EC-3 thru EC-3A for Station Ranges

INSTALL MATTING FOR EROSION CONTROL IN THE PROPOSED DITCH LINE. SEE SHEETS EC-3 THRU EC-3A FOR STATION RANGES



NOTE: UTILIZE TEMPORARY SEDIMENT BASIN OR SPECIAL STILLING BASIN(S) AS STILLING BASIN WHERE APPLICABLE.

NOTES: ANY DEVIATION FROM OPTIONS GIVEN WILL REQUIRE PRIOR APPROVAL BY ENGINEER.

ADDITIONAL EROSION CONTROL DEVICES MAY NEED TO BE INSTALLED AS DIRECTED BY THE ENGINEER.

★ PROPOSED TRAFFIC SIGNAL

SEE SHTS. 15 & 16 FOR -L- PROFILE  
SEE SHT. 17 FOR -Y1- PROFILE  
SEE SHT. 18 FOR -Y2- PROFILE

MATCHLINE -L- STA. 26+00.00 SEE SHT. 4

MATCHLINE -L- STA. 37+00.00 SEE SHT. 6

REMOVE 24" RCP & REPLACE W/ 36" RCP-IV

CLASS I RIP RAP ON STREAM  
CLASS I RIP RAP COUNTERSUNK IN STREAM BED  
EST 30 TONS CLASS I RIP RAP  
EST 45 SY GFD  
SEE DETAIL 20/SHEET 2D-1

FK & PARTNERS, LLC  
DB 15324 PG 2340  
BM 1991 PG 0140

54 LF OF 3 @ 10" X 10" RCBC EXTENSION NOT BURIED

EMBANKMENT PROTECTION  
CLASS II RIP RAP  
EST 15 TONS  
EST 30 SY GFD  
SEE DETAIL 19/SHEET 2D-1

STANDARD 3' BASE DITCH  
W/ CLASS I RIP RAP  
VDEE = EST 24 CY  
SLOPE = 1.25%  
EST 80 TONS  
EST 80 SY GFD  
SEE DETAIL 19/SHEET 2D-1

CLEANOUT EXIST. 36" RCP  
ADD CLASS I RIP RAP  
EST 15 TONS  
EST 30 SY GFD  
WENDYS PROPERTIES LLC  
DB 6195 PG 247  
BM 1996 PG 540

CONTRACTOR TO VERIFY PIPE INVERT LOCATION  
-C02- POT Sta. 35+70.00  
-L- POT Sta. 35+70.00  
OFF. = 27' RT.

CONTRACTOR TO FIELD VERIFY OTCB INVERT AND TIE IN, CLEAN OUT SYSTEM

CONVERT CB TO JB W/MH  
WAFFLE HOUSE INC  
DB 6696 PG 486  
BM 1995 PG 1525

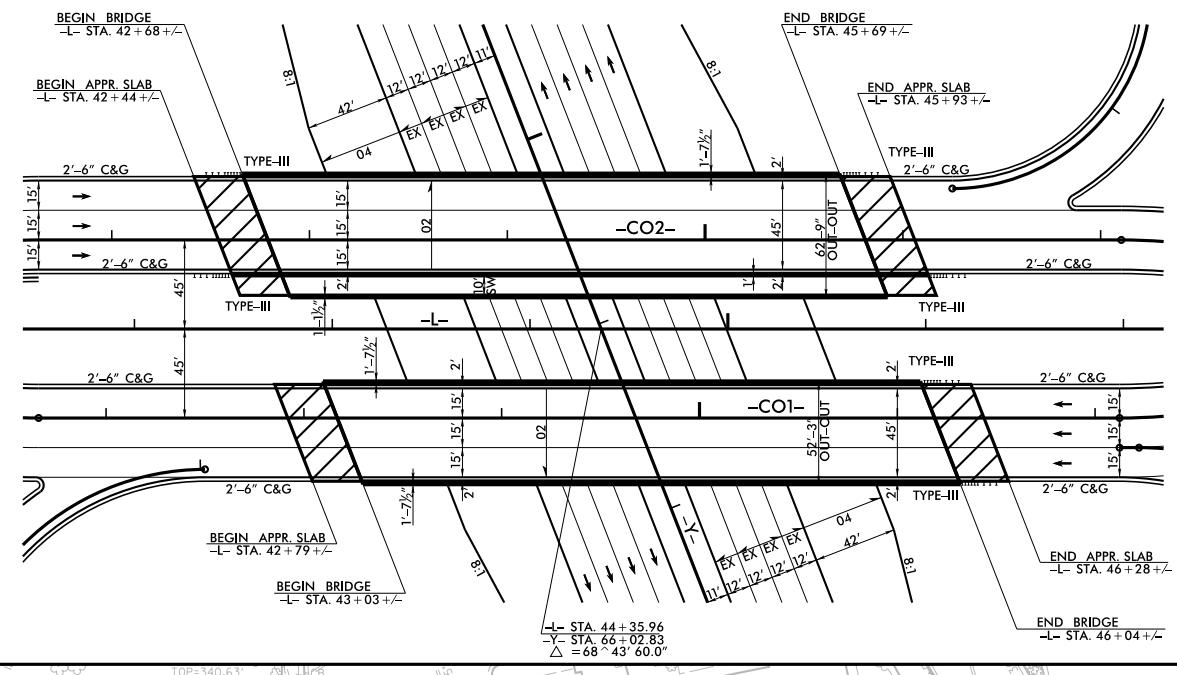
RDU CHOICE PROPERTIES INC  
DB 7707 PG 842  
BM 1999 PG 144  
BM 1987 PG 1240

BRE/LO PROPERTIES LLC  
DB 11859 PG 1146  
BM 1995 PG 1186



REVISIONS

SKETCH SHOWING PAVEMENT STRUCTURE RELATIONSHIP



NOTE: USE 1.0 FT WEIR HEIGHT FOR TEMPORARY ROCK SILT CHECKS TYPE - A THAT ARE NOT LABELED.

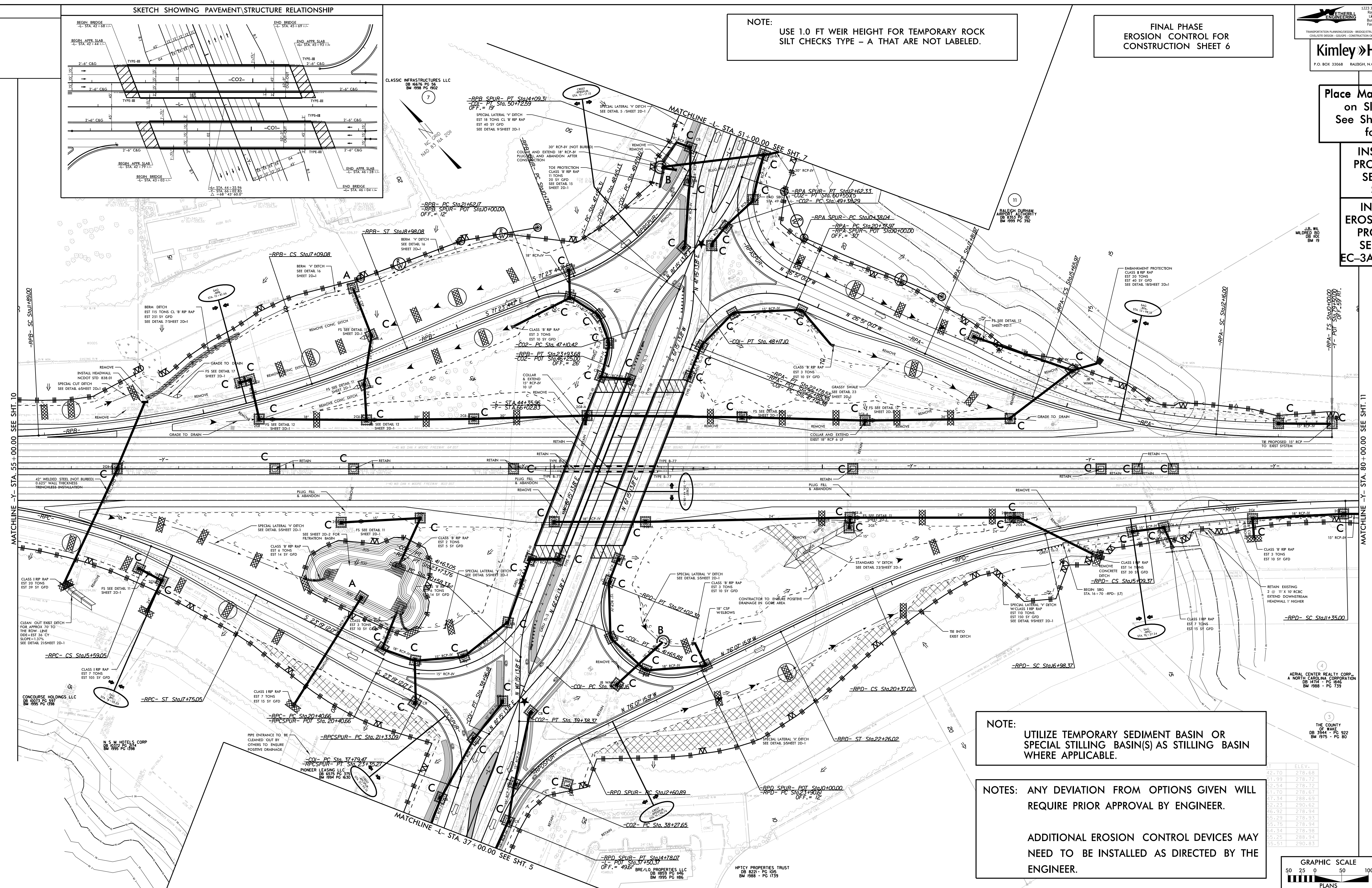
FINAL PHASE EROSION CONTROL FOR CONSTRUCTION SHEET 6

Project information including Kimley-Horn logo, project reference number 1-5700, sheet number EC-17/CONST 6, and contact details for Raleigh, N.C.

Place Matting for Erosion Control on Slope as Work Allows. See Sheets EC-3 thru EC-3A for Station Ranges

INSTALL PSRM IN THE PROPOSED DITCH LINE. SEE SHEET EC-3A FOR STATION RANGES

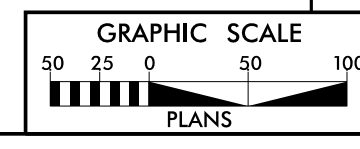
INSTALL MATTING FOR EROSION CONTROL IN THE PROPOSED DITCH LINE. SEE SHEETS EC-3 THRU EC-3A FOR STATION RANGES



NOTE: UTILIZE TEMPORARY SEDIMENT BASIN OR SPECIAL STILLING BASIN(S) AS STILLING BASIN WHERE APPLICABLE.

NOTES: ANY DEVIATION FROM OPTIONS GIVEN WILL REQUIRE PRIOR APPROVAL BY ENGINEER.

ADDITIONAL EROSION CONTROL DEVICES MAY NEED TO BE INSTALLED AS DIRECTED BY THE ENGINEER.



Additional notes and information including profile references (e.g., SEE SHTS. 15 & 16 FOR -L- PROFILE), location SR 505 (HARROTT BLVD) WITH I-40, and a table for sheet numbers and station ranges.



INSTALL PSRM IN THE PROPOSED DITCH LINE. SEE SHEET EC-3A FOR STATION RANGES

Place Matting for Erosion Control on Slope as Work Allows. See Sheets EC-3 thru EC-3A for Station Ranges

NOTE: USE 1.0 FT WEIR HEIGHT FOR TEMPORARY ROCK SILT CHECKS TYPE - A THAT ARE NOT LABELED.

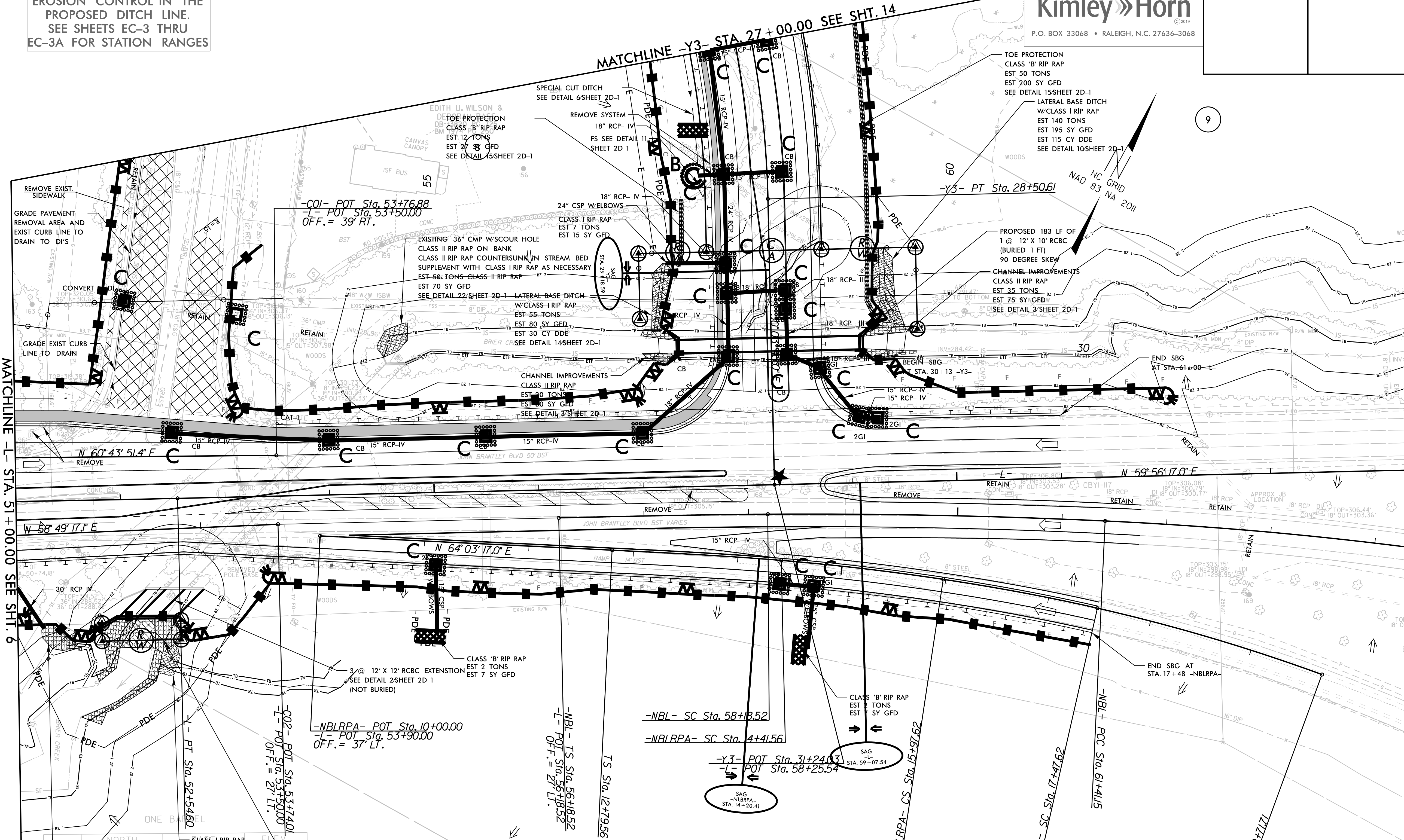
FINAL PHASE EROSION CONTROL FOR CONSTRUCTION SHEET 7

**ETHERILL ENGINEERING**  
 1223 Jones Franklin Rd. Raleigh, N.C. 27606  
 License No. F-0377  
 Bus: 919 851 8077  
 Fax: 919 851 8107

**Kimley»Horn**  
 P.O. BOX 33068 • RALEIGH, N.C. 27636-3068

TRANSPORTATION PLANNING/DESIGN - BRIDGE/STRUCTURE DESIGN  
 CIVIL/SITE DESIGN - GIS/GPS - CONSTRUCTION OBSERVATION

PROJECT REFERENCE NO. I-5700	SHEET NO. EC-18/CONST.7
R/W SHEET NO.	HYDRAULICS ENGINEER
ROADWAY DESIGN ENGINEER	



	NORTH	CLASS I RIP RAP	ELEV.
CUL	CLASS I RIP RAP ON BANK	EST 15 TONS	281.47
CUL	CLASS I RIP RAP COUNTERSUNK IN STREAM BED	EST 25 SY GFD	2055709.89
CE	EST 40 TONS CLASS I RIP RAP	2055717.03	287.25
HW	EST 55 SY GFD	2055716.67	289.91
CUL 3	SEE DETAIL 13/SHEET 2D-1	2055628.39	280.11
CUL 4		2055642.94	280.12
CE 2		2055635.48	292.22
HW 2		2055636.33	294.64

NOTE: UTILIZE TEMPORARY SEDIMENT BASIN OR SPECIAL STILLING BASIN(S) AS STILLING BASIN WHERE APPLICABLE.

NOTES: ANY DEVIATION FROM OPTIONS GIVEN WILL REQUIRE PRIOR APPROVAL BY ENGINEER.

ADDITIONAL EROSION CONTROL DEVICES MAY NEED TO BE INSTALLED AS DIRECTED BY THE ENGINEER.

★ PROPOSED TRAFFIC SIGNAL

SEE SHTS. 15 & 16 FOR -L- PROFILE  
 SEE SHTS. 18 & 19 FOR -Y3- PROFILE  
 SEE SHT. 17 FOR -NBL- PROFILE

5/14/19